6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R04-OAR-2021-0062; FRL-9504-01-R4]

Air Plan Approval; NC; Great Smoky Mountains National Park, Raleigh-Durham-Chapel Hill and Rocky Mount Areas Limited Maintenance Plans for the 1997 8-Hour Ozone NAAQS

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to approve state implementation plan (SIP) revisions submitted by the State of North Carolina, through the North Carolina Department of Environment and Natural Resources, Division of Air Quality (NCDAQ), in a letter dated September 22, 2020. The SIP revisions include the 1997 8-hour ozone national ambient air quality standards (NAAQS) Limited Maintenance Plans (LMPs) for the Great Smoky Mountains National Park (GSMNP), Raleigh-Durham-Chapel Hill (Triangle) and Rocky Mount, North Carolina Areas (collectively, "Areas"). EPA is proposing to approve the LMPs for the Areas because each LMP provides for the maintenance of the 1997 8-hour ozone NAAQS within each of the Areas through the end of the second 10-year portion of the maintenance period. The effect of this action would be to make certain commitments related to maintenance of the 1997 8-hour ozone NAAQS in the Areas federally-enforceable as part of the North Carolina SIP.

DATES: Written comments must be received at the address below on or before **[Insert date 30 days after date of publication in the Federal Register]**.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-R04-OAR-2021-0062 at https://www.regulations.gov. Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from Regulations.gov. EPA may publish any comment received to its public docket. Do not submit electronically any information

you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. EPA will generally not consider comments or comment contents located outside of the primary submission (i.e., on the web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit https://www2.epa.gov/dockets/commenting-epa-dockets.

FOR FURTHER INFORMATION CONTACT: Dianna Myers, Air Regulatory Management Section, Air Planning and Implementation Branch, Air and Radiation Division, U.S. Environmental Protection Agency, Region 4, 61 Forsyth Street, SW, Atlanta, Georgia 30303-8960. The telephone number is (404) 562-9207. Ms. Myers can also be reached via electronic mail at myers.dianna@epa.gov.

SUPPLEMENTARY INFORMATION:

Table of Contents

I. Summary of EPA's Proposed Action
II. Background
III. North Carolina's SIP Submittals
IV. EPA's Evaluation of North Carolina's SIP Submittals
A. Attainment Emissions Inventory
B. Maintenance Demonstration
C. Monitoring Network and Verification of Continued Attainment
D. Contingency Plan
E. Conclusion
V. Transportation Conformity and General Conformity
VI. Proposed Action
VII. Statutory and Executive Order Reviews

I. Summary of EPA's Proposed Action

In accordance with the Clean Air Act (CAA or Act), EPA is proposing to approve the GSMNP, Triangle and Rocky Mount LMPs for the 1997 8-hour ozone NAAQS, adopted and

submitted by NCDAQ as revisions to the North Carolina SIP on September 22, 2020. On April 15, 2004, EPA published a final rule designating the GSMNP, Triangle and Rocky Mount Areas nonattainment for the 1997 8-hour ozone NAAQS.[1] Subsequently, EPA approved maintenance plans and redesignated the Triangle, GSMNP, and Rocky Mount Areas attainment for the 1997 8-hour ozone NAAQS.[2]

The Areas' LMPs for the 1997 8-hour ozone NAAQS, submitted by NCDAQ on September 22, 2020, are designed to maintain the 1997 8-hour ozone NAAQS within the GSMNP, Triangle and Rocky Mount Areas through the end of the second 10-year portion of the maintenance period beyond redesignation. EPA is proposing to approve the plans because they meet all applicable requirements under CAA sections 110 and 175A.

As a general matter, the GSMNP, Triangle and Rocky Mount LMPs for the 1997 8-hour ozone NAAQS rely on the same control measures and contingency provisions to maintain the 1997 8-hour ozone NAAQS during the second 10-year portion of each area's maintenance period as the maintenance plans submitted by NCDAQ for the first 10-year period.

II. Background

Ground-level ozone is formed when oxides of nitrogen (NOx) and volatile organic compounds (VOC) react in the presence of sunlight. These two pollutants, referred to as ozone precursors, are emitted by many types of pollution sources, including on- and off-road motor vehicles and engines, power plants and industrial facilities, and smaller area sources such as lawn and garden equipment and paints. Scientific evidence indicates that adverse public health effects occur following exposure to ozone, particularly in children and adults with lung disease. Breathing air containing ozone can reduce lung function and inflame airways, which can increase respiratory symptoms and aggravate asthma and other lung diseases.

---

[1] *See* 69 FR 23857.
[2] *See* 72 FR 72948 (December 26, 2007), 74 FR 63995 (December 7, 2009), and 71 FR 64891 (November 6, 2006).

Ozone exposure also has been associated with increased susceptibility to respiratory infections, medication use, doctor visits, and emergency department visits and hospital admissions for individuals with lung disease. Children are at increased risk from exposure to ozone because their lungs are still developing and they are more likely to be active outdoors, which increases their exposure.[3]

In 1979, under section 109 of the CAA, EPA established primary and secondary NAAQS for ozone at 0.12 parts per million (ppm), averaged over a 1-hour period. *See* 44 FR 8202 (February 8, 1979). On July 18, 1997, EPA revised the primary and secondary NAAQS for ozone to set the acceptable level of ozone in the ambient air at 0.08 ppm, averaged over an 8-hour period. *See* 62 FR 38856 (July 18, 1997).[4] EPA set the 8-hour ozone NAAQS based on scientific evidence demonstrating that ozone causes adverse health effects at lower concentrations and over longer periods of time than was understood when the pre-existing 1-hour ozone NAAQS was set. EPA determined that the 8-hour ozone NAAQS would be more protective of human health, especially in children and adults who are active outdoors, and individuals with a pre-existing respiratory disease, such as asthma.

Following promulgation of a new or revised NAAQS, EPA is required by the CAA to designate areas throughout the nation as attaining or not attaining the NAAQS. On April 15, 2004, EPA designated the GSMNP, Triangle and Rocky Mount Areas nonattainment for the 1997 8-hour ozone NAAQS. The GSMNP nonattainment area included portions of Haywood and Swain Counties. The Triangle nonattainment area included Durham, Franklin, Granville, Johnston, Orange, Person and Wake Counties in their entirety and the Townships of Baldwin, Center, New Hope and Williams in Chatham County. The Rocky Mount nonattainment area included Edgecombe and Nash Counties in their entirety. The designations became effective on

---

[3] *See* "Fact Sheet, Proposal to Revise the National Ambient Air Quality Standards for Ozone," January 6, 2010, and 75 FR 2938 (January 19, 2010).

[4] In March 2008, EPA completed another review of the primary and secondary ozone NAAQS and tightened them further by lowering the level for both to 0.075 ppm. *See* 73 FR 16436 (March 27, 2008). Additionally, in October 2015, EPA completed a review of the primary and secondary ozone NAAQS and tightened them by lowering the level for both to 0.070 ppm. *See* 80 FR 65292 (October 26, 2015).

June 15, 2004.[5] Similarly, on May 21, 2012, EPA designated areas as unclassifiable/attainment or nonattainment for the 2008 8-hour ozone NAAQS. EPA designated the counties and townships that comprised the Areas as unclassifiable/attainment for the 2008 8-hour ozone NAAQS. These designations became effective on July 20, 2012.[6] In addition, on November 16, 2017, areas were designated for the 2015 8-hour ozone NAAQS. The counties and townships that comprised the Areas were designated as attainment/unclassifiable for the 2015 8-hour ozone NAAQS, with an effective date on January 16, 2018.[7]

A state may submit a request to redesignate a nonattainment area that is attaining a NAAQS, and, if the area has met other required criteria described in section 107(d)(3)(E) of the CAA, EPA may approve the area's redesignation to attainment.[8] One of the criteria for redesignation is to have an approved maintenance plan under CAA section 175A. The maintenance plan must demonstrate that the area will continue to maintain the NAAQS for the period extending 10 years after redesignation, and it must contain such additional measures as necessary to ensure maintenance and such contingency provisions as necessary to assure that violations of the NAAQS will be promptly corrected. At the end of the eighth year after the effective date of redesignation, the state must also submit a second maintenance plan to ensure ongoing maintenance of the NAAQS for an additional ten years pursuant to CAA section 175A(b) (i.e., ensuring maintenance for 20 years after redesignation).

EPA has published long-standing guidance for states on developing maintenance plans.[9] The Calcagni memo provides that states may generally demonstrate maintenance by either performing air quality modeling to show that the future mix of sources and emission rates will

---

[5] *See* 69 FR 23858.
[6] *See* 77 FR 30088.
[7] *See* 82 FR 54232.
[8] Section 107(d)(3)(E) of the CAA sets out the requirements for redesignating a nonattainment area to attainment. They include attainment of the NAAQS, full approval of the applicable SIP pursuant to CAA section 110(k), determination that improvement in air quality is a result of permanent and enforceable reductions in emissions, demonstration that the state has met all applicable section 110 and part D requirements, and a fully approved maintenance plan under CAA section 175A.
[9] *See* John Calcagni, Director, Air Quality Management Division, EPA Office of Air Quality Planning and Standards, "Procedures for Processing Requests to Redesignate Areas to Attainment," September 4, 1992 (Calcagni memo).

not cause a violation of the NAAQS or by showing that projected future emissions of a pollutant and its precursors will not exceed the level of emissions during a year when the area was attaining the NAAQS (i.e., attainment year inventory). *See* Calcagni memo at page 9. EPA clarified in three subsequent guidance memos that certain areas could meet the CAA section 175A requirement to provide for maintenance by showing that the area was unlikely to violate the NAAQS in the future, using information such as the area's design value[10] being well below the standard and the area having a historically stable design value.[11] EPA refers to a maintenance plan containing this streamlined demonstration as an LMP.

EPA has interpreted CAA section 175A as permitting the LMP option because section 175A of the Act does not define how areas may demonstrate maintenance, and in EPA's experience implementing the various NAAQS, areas that qualify for an LMP and have approved LMPs have rarely, if ever, experienced subsequent violations of the NAAQS. As noted in the LMP guidance memoranda, states seeking an LMP must still submit the other maintenance plan elements outlined in the Calcagni memo, including: an attainment emissions inventory, provisions for the continued operation of the ambient air quality monitoring network, verification of continued attainment, and a contingency plan in the event of a future violation of the NAAQS. Moreover, states seeking an LMP must still submit their section 175A maintenance plan as a revision to their SIP, with all attendant notice and comment procedures. While the LMP guidance memoranda were originally written with respect to certain NAAQS,[12] EPA has extended the LMP interpretation of section 175A to other NAAQS and pollutants not specifically covered by the previous guidance memos.[13]

---

[11] *See* "Limited Maintenance Plan Option for Nonclassifiable Ozone Nonattainment Areas" from Sally L. Shaver, Office of Air Quality Planning and Standards (OAQPS), dated November 16, 1994; "Limited Maintenance Plan Option for Nonclassifiable CO Nonattainment Areas" from Joseph Paisie, OAQPS, dated October 6, 1995; and "Limited Maintenance Plan Option for Moderate PM_{10} Nonattainment Areas" from Lydia Wegman, OAQPS, dated August 9, 2001. Copies of these guidance memoranda can be found in the docket for this proposed rulemaking.

[12] The prior memos addressed: unclassifiable areas under the 1-hour ozone NAAQS, nonattainment areas for the PM_{10} (particulate matter with an aerodynamic diameter less than 10 microns) NAAQS, and nonattainment for the carbon monoxide (CO) NAAQS.

[13] *See, e.g.*, 79 FR 41900 (July 18, 2014) (Approval of second ten-year LMP for Grant County 1971 SO_2 maintenance area).

In this case, EPA is proposing to approve the Areas' LMPs for the 1997 8-hour ozone NAAQS, because the State has made a showing, consistent with EPA's prior LMP guidance, that the Areas' ozone concentrations are well below the 1997 8-hour ozone NAAQS and have been historically stable and that it has met the other maintenance plan requirements. NCDAQ has submitted the LMPs for the GSMNP, Triangle and Rocky Mount 1997 8-hour ozone NAAQS maintenance areas to fulfill the second maintenance plan requirement in the Act. EPA's evaluation of the Areas' LMPs for the 1997 8-hour ozone NAAQS is presented below.

On July 24, 2009, NCDAQ submitted to EPA a request to redesignate the GSMNP Area to attainment for the 1997 8-hour ozone NAAQS. This submittal included a plan to provide for maintenance of the 1997 8-hour ozone NAAQS in the GSMNP Area through 2020 as a revision to the North Carolina SIP. EPA approved the GSMNP Maintenance Plan and the State's request to redesignate the GSMNP Area to attainment for the 1997 8-hour ozone NAAQS effective January 6, 2010.[14] On June 7, 2007, NCDAQ submitted to EPA a request to redesignate the Triangle Area to attainment for the 1997 8-hour ozone NAAQS. This submittal included a plan to provide for maintenance of the 1997 8-hour ozone NAAQS in the Triangle Area through 2017 as a revision to the North Carolina SIP. EPA approved the Triangle Maintenance Plan and the State's request to redesignate the Triangle Area to attainment for the 1997 8-hour ozone NAAQS effective December 26, 2007.[15] On June 19, 2006, NCDAQ submitted to EPA a request to redesignate the Rocky Mount Area to attainment for the 1997 8-hour ozone NAAQS. This submittal included a plan to provide for maintenance of the 1997 8-hour ozone NAAQS in the Rocky Mount Area through 2017 as a revision to the North Carolina SIP. EPA approved the Rocky Mount Maintenance Plan and the State's request to redesignate the Rocky Mount Area to attainment for the 1997 8-hour ozone NAAQS effective January 5, 2007.[16]

Under CAA section 175A(b), states must submit a revision to the first maintenance plan

---

[14] *See* 74 FR 63995 (December 7, 2009).
[15] *See* 72 FR 72948 (December 26, 2007).
[16] *See* 71 FR 64891 (November 6, 2006).

eight years after redesignation to provide for maintenance of the NAAQS for ten additional years following the end of the first 10-year period. EPA's final implementation rule for the 2008 8-hour ozone NAAQS revoked the 1997 8-hour ozone NAAQS and stated that one consequence of revocation was that areas that had been redesignated to attainment (i.e., maintenance areas) for the 1997 NAAQS no longer needed to submit second 10-year maintenance plans under CAA section 175A(b).[17]

In *South Coast Air Quality Management District v. EPA*, the United States Court of Appeals for the District of Columbia Circuit (D.C. Circuit) vacated EPA's interpretation that, because of the revocation of the 1997 8-hour ozone NAAQS, second maintenance plans were not required for "orphan maintenance areas," i.e., areas that had been redesignated to attainment for the 1997 8-hour ozone NAAQS maintenance areas and were designated attainment for the 2008 ozone NAAQS. *South Coast*, 882 F.3d 1138 (D.C. Cir. 2018). Thus, states with these "orphan maintenance areas" under the 1997 8-hour ozone NAAQS must submit maintenance plans for the second maintenance period. Accordingly, on September 22, 2020, North Carolina submitted a second maintenance plan for the GSMNP, Triangle and Rocky Mount Areas that show that the Areas are expected to remain in attainment of the 1997 8-hour ozone NAAQS through the following dates: GSMNP Area through January 6, 2030; Rocky Mount Area through January 5, 2027; and Triangle Area through December 26, 2027.

In recognition of the continuing record of air quality monitoring data showing ambient 8-hour ozone concentrations in the Areas are well below the 1997 8-hour ozone NAAQS, NCDAQ chose the LMP option for the development of the Areas' second 1997 8-hour ozone NAAQS maintenance plans. On September 22, 2020, NCDAQ adopted and submitted the second 10-year 1997 8-hour ozone maintenance plans to EPA as revisions to the North Carolina SIP.

III. North Carolina's SIP Submittals

As mentioned above, on September 22, 2020, NCDAQ submitted the GSMNP, Triangle

[17] *See* 80 FR 12264, 12315 (March 6, 2015).

and Rocky Mount LMPs for the 1997 8-Hour ozone NAAQS to EPA as revisions to the North Carolina SIP. The submittal includes the LMPs, air quality data, emissions inventory information, and appendices, as well as evidence of adoption of the plan by NCDAQ. Appendices to the plan include comments and responses between EPA and NCDAQ; documentation of notice, hearing, and public participation prior to adoption of the plan by NCDAQ on September 22, 2020; and an explanation that North Carolina's LMP submittals for the remainder of the 20-year maintenance period for the 1997 8-hour ozone NAAQS in the remaining GSMNP, Triangle and Rocky Mount 1997 8-hour ozone areas are in response to the Court overturning aspects of EPA's Implementation Plan rule. In addition, the LMPs went through interagency consultation.

The GSMNP, Triangle and Rocky Mount LMPs for the 1997 8-Hour ozone NAAQS each include same or similar emission reduction strategies as each Area's first 10-year Maintenance Plan, as well as additional emissions reduction measures to provide for the maintenance of the 1997 8-hour ozone NAAQS through the following dates: GSMNP Area through January 6, 2030; Rocky Mount Area through January 5, 2027; and Triangle Area through December 26, 2027. Specifically, the measures upon which the second 10-year LMPs for the Areas rely include the continuation of the Clean Air Bill/Vehicle Emissions Inspection and Maintenance Program,[18] Clean Smokestacks Act, and the Open Burning Rule found in Chapter 15A NCAC 02D.1903. Each Area's LMP also relies on continued implementation of federal measures (e.g., Tier 2 Motor Vehicle Emission and Fuel Standards; Heavy-duty Gasoline and Diesel Highway Vehicle Standards; Large Nonroad Diesel Engine Standards; Nonroad Spark-Ignition Engine and Recreational Engine Standards; Tier 3 Motor Vehicle Emission and Fuel Standards;[19] and the

[18] On September 25, 2018, EPA approved removal of 26 counties from North Carolina's expanded Inspection and Maintenance program. The removal affected the following counties subject to this action: Haywood, Granville, Orange, Chatham, Edgecombe, and Nash. *See* 83 FR 48383. On September 11, 2019, EPA published a final rule approving revisions to North Carolina's expanded Inspection and Maintenance model year coverage for vehicles in 22 counties. The revision affected the following counties subject to this action: Durham, Johnston, Franklin and Wake. *See* 84 FR 47889.

[19] *See* 79 FR 23414 (April 28, 2014).

Tennessee Valley Authority (TVA) Consent Decree).

IV. EPA's Evaluation of North Carolina's SIP Submittals

EPA has reviewed the Areas' LMPs for the 1997 8-hour ozone NAAQS, which is designed to maintain the 1997 8-hour ozone NAAQS within the Areas through the end of the 20-year period beyond redesignation, as required under CAA section 175A(b). The following is a summary of EPA's interpretation of the section 1745A requirements[20] and EPA's evaluation of how each requirement is met.

A. Attainment Emissions Inventory

For maintenance plans, a state should develop a comprehensive, accurate inventory of actual emissions for an attainment year to identify the level of emissions which is sufficient to maintain the NAAQS. A state should develop this inventory consistent with EPA's most recent guidance on emissions inventory development. For ozone, the inventory should be based on typical summer day emissions of VOCs and NOx, as these pollutants are precursors to ozone formation. The GSMNP, Triangle and Rocky Mount LMPs include an ozone attainment inventory for each of the Areas that reflect typical summer day emissions for 2014. Table 1 presents a summary of the inventory for 2014 contained in the LMPs.

Table 1. Average Summer Day 2014 NOx and VOC Emissions by Sector (tons/day) in GSMNP, Triangle and Rocky Mount

		2014	
Maintenance Area	**Sector**	**NOx**	**VOC**
GSMNP	Fire	0.000	0.000
	Nonpoint	0.000	0.039
	Nonroad	0.002	0.029
	Onroad	0.184	0.245
	Point	0.000	0.000
	Total	**0.186**	**0.313**
Rocky Mount	Fire	0.005	0.055
	Nonpoint	1.382	5.895
	Nonroad	1.453	0.946

[20] *See* Calcagni memo.

	Onroad	8.841	4.391
	Point	2.938	1.576
	Total	**14.619**	**12.863**
Triangle	Fire	0.014	0.146
	Nonpoint	6.103	51.294
	Nonroad	14.970	15.782
	Onroad	64.856	32.603
	Point	40.457	7.383
	Total[21]	**126.400**	**107.208**

The Emissions Inventory section of the LMPs for the GSMNP, Triangle and Rocky Mount Areas describes the methods, models and assumptions used to develop the attainment inventory. These estimates were derived from emissions values provided by EPA for use in developing maintenance plans for the 1997 8-hour ozone NAAQS.[22] For the Rocky Mount Area, NCDAQ used the emissions summaries generated by EPA from the 2014 Version 7.1 modeling platform.[23] Because EPA's emissions estimates are provided at the county level and the GSMNP and Triangle Areas include one or more partial counties, NCDAQ developed methodologies to estimate the proportion of county emissions occurring in these maintenance areas. These methodologies utilize a combination of more specific locational data as well as local expert judgment.[24] The emissions data in the 2014v7.1 platform are primarily based on the 2014NEIv1 for point sources, nonpoint sources, commercial marine vessels (CMV), onroad and nonroad mobile sources, and fires. The GSMNP and Triangle area estimates reflect some adjustments to EPA's estimates as described on pages 11 through 16 of the submittal.

Based on our review of the methods, models, and assumptions used by DAQ to develop the VOC and NOx estimates, we propose to find that the Areas' LMPs include a comprehensive, reasonably accurate inventory of actual ozone precursor emissions in attainment year 2014, and

[21] The totals represented in the table may be slightly different than the inventories in the LMPs based on rounding convention.
[22] U.S. EPA, "1997 Ozone NAAQS Air Quality Monitoring and Modeling Data" downloaded from https://www.epa.gov/sites/production/files/2018-11/ozone_1997_naaqs_air_qual_monitoring_and_modeling_data_nov_19_2018_1.xlsx, accessed April 2020.
[23] U.S. EPA, "Air Emissions Modeling, 2014 Version 7.1 Platform," is available from https://www.epa.gov/air-emissions-modeling/2014-version-71-platform, accessed April 2020 (note that the version 7 platform, which included 2028 projections is not available on EPA's website).
[24] NCDAQ also coordinated with the National Park Service for the GSMNP area.

propose to conclude that the plans' inventories are acceptable for the purposes of a subsequent maintenance plan under CAA section 175A(b).

B. Maintenance Demonstration

The maintenance demonstration requirement is considered to be satisfied in an LMP if the state can provide sufficient weight of evidence indicating that air quality in the area is well below the level of the NAAQS, that past air quality trends have been shown to be stable, and that the probability of the area experiencing a violation over the second 10-year maintenance period is low.[25] These criteria are evaluated below with regard to the GSMNP, Triangle and Rocky Mount Areas.

1. Evaluation of ozone air quality levels.

To attain the 1997 8-hour ozone NAAQS, the three-year average of the fourth-highest daily maximum 8-hour average ozone concentrations (design value) at each monitor within an area must not exceed 0.08 ppm. Based on the rounding convention described in 40 CFR part 50, Appendix I, the NAAQS is attained if the design value is 0.084 ppm (84 parts per billion or "ppb")[26] or below. EPA has evaluated the quality assured and certified 2017–2019 monitoring data (which was the most recent data at the time of submission) and determined that the 2017-2019 design values for the Areas are as follows: 63 ppb, or 75 percent of the level of the 1997 8-hour ozone NAAQS for the GSMNP Area; 64 ppb, or 74 percent of the level of the NAAQS for the Triangle Area; and 61 ppb, or 73 percent of the level of the NAAQS for the Rocky Mount Area. In addition, EPA evaluated the quality assured and certified 2018–2020 monitoring data (which is the current most recent monitoring data) and determined that the 2018–2020 design values for the Areas are as follows: 62 ppb, or 74 percent of the level of the 1997 8-hour ozone NAAQS for the GSMNP Area; 60 ppb, or 71 percent of the level of the NAAQS for the Triangle Area; and 58 ppb, or 69 percent of the level of the NAAQS for the Rocky Mount Area.

---

[25] *See* Calcagni Memo.

[26] EPA set the 1997 8-hour ozone NAAQS in ppm. To convert ppm to ppb the decimal is moved three places to the right (*i.e.,* 0.084 ppm is equal to 84 ppb). NCDAQ provided the values in ppb for easy reference.

Consistent with prior guidance, EPA believes that if the most recent air quality design value for the area is at a level that is well below the NAAQS (e.g., below 85 percent of the NAAQS, or in this case below 71 ppb), then EPA considers the state to have met the section 175A requirement for a demonstration that the area will maintain the NAAQS for the requisite period. Such a demonstration assumes continued applicability of prevention of significant deterioration requirements and any control measures already in the SIP, and that Federal measures will remain in place through the end of the second 10-year maintenance period, absent a showing consistent with section 110(l) that such measures are not necessary to assure maintenance.

Table 2 presents the design values for each monitor in the GSMNP, Triangle and Rocky Mount Areas over the 2011–2020 period.[27] As shown in Table 2, all sites have been well below the level of the 1997 8-hour ozone NAAQS since the 2009-2011 design value, and the most current design value for each of the Areas is below 85 percent of the NAAQS, consistent with prior LMP guidance.

Table 2. 1997 8-Hour Ozone NAAQS Design Values (ppb) at Monitoring Sites in the GSMNP, Triangle and Rocky Mount Areas for the 2011-2020 Time Period

Location	County	1997 Ozone NAAQS Area	AQS Site ID	2009 - 2011 DV	2010 - 2012 DV	2011 - 2013 DV	2012 - 2014 DV	2013 - 2015 DV	2014 - 2016 DV	2015 - 2017 DV	2016 - 2018 DV	2017 - 2019 DV	2018 - 2020 DV
SW Corner of Roof Haywood Co Health Department Building	Haywood	GSMNP	37-087-0004	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]
Waynesville School	Haywood	GSMNP	37-087-0008	65[a]	65[a]	61	60	60	62	61	61	59	58
Frying Pan Mountain	Haywood	GSMNP	37-087-0035	*[b]	*[b]	*[b]	67	65	66	64	63	62	61
Purchase Knob	Haywood	GSMNP	37-087-0036	67	68	65	65	64	65	64	64	63	62
Bryson City	Swain	GSMNP	37-173-0002	62	62	58	57	57	60	60	60	58	56

[27] NCDAQ provided monitoring data for years 2001 through 2019 and projected 2023 design values for each monitor as supporting weight of evidence. The values can be found on Page 8 of the submittal. The monitoring data shows the general downward trend in design values at the monitoring sites. The data also shows the highest design value projected in 2023 is 53.8 ppb, 57.5 ppb and 51.3 ppb for GSMNP, Triangle and Rocky Mount, respectively.

Acquoni Rd.	Swain	GSMNP	37-173-0007	*	*	*	58	59	61	58	58	*[c]	58
Pittsboro	Chatham	Triangle	37-037-0004	66	65	61	59	58	*	*	*	*	*
Duke Street[d]	Durham	Triangle	37-063-0013	*	*	*	*	*	*	*	*	*	*
Durham[d] Armory	Durham	Triangle	37-063-0015	70	72	68	66	61	62	61	62	61	59
Franklinton	Franklin	Triangle	37-069-0001	69	71	68	64	61	*	*	*	*	*
Butner	Granville	Triangle	37-077-0001	72	72	69	66	63	64	64	65	64	60
West Johnston Co.	Johnston	Triangle	37-101-0002	71	74	70	67	63	65	63	63	61	59
Bushy Fork	Person	Triangle	37-145-0003	70	74	69	66	61	63	61	62	62	59
Millbrook School	Wake	Triangle	37-183-0014	71	72	68	65	63	65	66	66	64	60
Fuquay-Varina	Wake	Triangle	37-183-0016	73	75	71	65	62	*	*	*	*	*
Leggett	Edgecombe	Rocky Mount	37-065-0099	70	71	69	65	62	*[b]	62	62	61	58

a The monitor at the Haywood County Health Department building was discontinued in 2011 due to remodeling. The monitor was moved across the street to an elementary school (the Waynesville School monitor). EPA approved combining the data from the two sites to provide design values for 2009-2011 and 2010-2012.
b This design value did not meet the three–year completeness requirement of 90%.
c This design value did not meet the three–year completeness requirement of 90% due to instrument malfunctions with various components of the analytic system during much of July and August 2017.
d The DAQ decided to consolidate the Duke Street ozone monitor and Durham Health PM monitors at one site, located across the street from the Duke Street location. EPA approved combining the data from the two sites to provide design values for 2005-2007 and 2006-2008.
*These monitors were either discontinued or had incomplete data.

Therefore, the GSMNP, Triangle and Rocky Mount Areas are eligible for the LMP option, and EPA proposes to find that the long record of monitored ozone concentrations that attain the NAAQS, together with the continuation of existing VOC and NOx emissions control programs, adequately provide for the maintenance of the 1997 8-hour ozone NAAQS in the Areas through the second 10-year maintenance period and beyond.

2. Stability of ozone levels.

As discussed above, the GSMNP, Triangle and Rocky Mount Areas have maintained air quality well below the 1997 8-hour ozone NAAQS over the past ten years. Additionally, the design value data shown within Table 2 illustrates that ozone levels have been relatively stable over this timeframe, with a modest downward trend. For example, the data within Table 2 indicates that the largest, year over year change in design value in these ten years was 4 ppb for

the GSMNP Area, which occurred between the 2012 design value and 2013 design value at monitor 37-087-0008 (Waynesville School) and at monitor 37-173-0002 (Bryson City), representing approximately a 6 percent decrease; 6 ppb for the Triangle Area, which occurred between the 2013 design value and 2014 design value at monitor 37-183-0016 (Fuquay-Varina), representing approximately an 8 percent decrease; and 4 ppb for the Rocky Mount Area, which occurred between the 2013 design value and 2014 design value at monitor 37-065-0099 (Leggett), representing approximately a 6 percent decrease.

Furthermore, overall trends in design values for the Areas between 2011-2020 indicates decreases in the monitored ozone concentrations. See, e.g., Table 2, above. The overall downward trend in design values for the GSMNP Area for monitor 37-087-0036 (Purchase Knob) was from 67 ppb to 62 ppb, a 7 percent decrease; the overall downward trend in the Triangle Area for monitor 37-077-0001 (Butner) was from 72 ppb to 60 ppb, a 17 percent decrease; and the overall downward trend for the only Rocky Mount monitor 37-065-0099 (Leggett) was from 70 ppb to 58 ppb, a 17 percent decrease.

The downward trend in ozone levels, coupled with the relatively small, year-over-year variation in ozone design values, makes it reasonable to conclude that the GSMNP, Triangle and Rocky Mount Areas will not exceed the 1997 8-hour ozone NAAQS during the second 10-year maintenance period.

3. Projected Emissions

Although under the LMP option there is no requirement to project emissions over the maintenance period, NCDAQ included an analysis of ozone precursor emissions trends expected over the course of the second maintenance period. NCDAQ provided a VOC and NOx emissions trends analysis from 2014 to 2028. The year 2014 was selected as a baseline for the projection because that is the most recent year for which a complete set of data is available from

the EPA's National Emissions Inventory (NEI) database.[28] Projected emissions data for the year 2028 were obtained from EPA.[29]

The emissions projection trends show that between 2014 and 2028, VOC emissions are estimated to fall by 67 percent within the GSMNP Area; 28 percent in the Triangle Area; and 27 percent in the Rocky Mount Area. The emissions projection trends show that between 2014 and 2028, NOx emissions are estimated to fall by 80 percent in the GSMNP Area; 52 percent in the Triangle Area; and 68 percent in the Rocky Mount Area. These projected declining emissions trends further support the proposed conclusion that it is unlikely that the Areas would violate the 1997 8-hour ozone NAAQS in the future. Table 3 presents a summary of projected emissions for 2028 contained in the maintenance plan.[30]

Table 3. Average Summer Day Projected 2028 NOx and VOC Emissions by Sector (tons/year)

		2028	
Maintenance Area	**Sector**	**NOx**	**VOC**
GSMNP	Fire[31]	0.000	0.000
	Nonpoint	0.000	0.032
	Nonroad	0.001	0.017
	Onroad	0.036	0.055
	Point	0.000	0.000
	Total	**0.037**	**0.104**
Rocky Mount	Fire	0.005	0.055
	Nonpoint	1.133	6.667
	Nonroad	0.807	0.903
	Onroad	1.804	0.983
	Point	0.892	0.774
	Total	**4.641**	**9.382**
Triangle	Fire	0.012	0.128
	Nonpoint	5.867	45.769
	Nonroad	9.167	14.533

[28] The 2017 NEI is currently available, however the 2014 NEI was the most recent NEI available at the time the second maintenance plan was developed by the State, and therefore, the 2014 NEI was used.
[29] https://www.epa.gov/air-emissions-modeling/2014-2016-version-7-air-emissions-modeling-platforms. EPA's emissions projections to 2028 were made from the 2011 NEI, as that iteration of the NEI was the most recently available version when the projection work was performed. Although this projection does not correspond exactly with the end of the second ten-year maintenance period, it provides additional support for EPA's proposed finding that the Area will maintain the NAAQS due to its low and historically stable design values. See the Emissions Inventory section of the LMP for additional information regarding the 2028 projections.
[30] The inventory documentation for this platform can be found here: https://www.epa.gov/air-emissionsmodeling/2011-version-63-platform.
[31]The DAQ replaced the 2028 fire sector emissions, which reflected estimates carried forward from the 2011 NEI, with values carried forward from the 2014 NEI.

	Onroad	15.113	10.646
	Point	30.654	5.631
	Total[32]	**60.813**	**76.707**

In addition to the long history of monitored ozone concentrations in these Areas that are well-below the NAAQS, additional supporting information that the Areas are expected to continue to maintain the NAAQS can be found in an analysis of future year design values that EPA recently completed for the Revised Cross-State Air Pollution Rule (CSAPR) Update for the 2008 Ozone NAAQS.[33] The modeled-projected analysis for monitors in the GSMNP, Triangle and Rocky Mount Areas, made for the year 2023, resulted in fewer than five days with modeled ozone concentrations greater than or equal to 60 ppb, indicating that future-year design values are expected to remain well below the NAAQS. EPA is not proposing to make any finding in this action regarding interstate transport obligations for any state.

C. Monitoring Network and Verification of Continued Attainment

EPA periodically reviews the ozone monitoring network that NCDAQ operates and maintains in accordance with 40 CFR part 58. This network plan, which is submitted annually to EPA, is consistent with the ambient air quality monitoring network assessment. The annual network plan developed by NCDAQ follows a public notification and review process. EPA has reviewed and approved the 2020 Ambient Air Monitoring Network Plan ("2020 Annual Network Plan").[34]

To verify the attainment status of the Areas over the maintenance period, the maintenance plan should contain provisions for continued operation of an appropriate, EPA-approved monitoring network in accordance with 40 CFR part 58. As noted above, NCDAQ's monitoring network in the Areas have been approved by EPA in accordance with 40 CFR part 58, and the

[32] The totals represented in the table may be slightly different based on rounding convention.
[33] On April 30, 2021, EPA published the final Revised CSAPR Update using updated modeling that focused on analytic years 2023 and 2028 and an interpolation analysis of these modeling results to generate air quality and contribution values for the 2021 analytic year. *See* 86 FR 23054. https://www.govinfo.gov/content/pkg/FR-2021-04-30/pdf/2021-05705.pdf.
[34] The letter approving the network plan is in the docket for this proposed rulemaking.

State has committed to continue to maintain a network in accordance with EPA requirements. EPA proposes to find that NCDAQ's monitoring network is adequate to verify continued attainment of the 1997 8-hour ozone NAAQS in each of the Areas.

D. Contingency Plan

Section 175A(d) of the CAA requires that a maintenance plan include contingency provisions. The purpose of such contingency provisions is to prevent future violations of the NAAQS or to promptly remedy any NAAQS violations that might occur during the maintenance period. These contingency measures are required to be implemented expeditiously once they are triggered by a future violation of the NAAQS or some other trigger. The state should identify specific triggers which will be used to determine when the contingency measures need to be implemented.

The LMPs state that the two main elements of the North Carolina contingency plans are tracking and triggering mechanisms to determine when control measures are needed, and a process for developing and adopting appropriate control measures. There are three potential triggers for the contingency plans. The primary trigger of each plan will be a violation of the 1997 8-hour ozone NAAQS at any of the maintenance area monitors. The secondary trigger will be a monitored air quality pattern that suggests an actual 1997 8-hour ozone NAAQS violation may be imminent. The tertiary trigger will be a monitored fourth highest exceedance of the NAAQS. Upon either the primary or secondary triggers being activated, NCDAQ will commence analyses to determine what additional measures, if any, will be necessary to attain or maintain the ozone standard. If activation of either the primary or secondary triggers occurs, each plan provides a regulatory adoption process for revising emission control strategies. Activation of the tertiary trigger will result in an analysis to understand the cause of the exceedance and to identify voluntary measures if needed. The primary trigger date will be 60 days from the date on which an ozone monitor in a maintenance area records a 4th highest value that, when averaged with the two previous ozone seasons' fourth highest values, results in a 3-

year average equal to or greater than 85 ppb. The secondary trigger date will be 60 days from the date on which an ozone monitor in a maintenance area records a 4th highest value of 85 ppb or greater for which the previous season had a 4th highest value of 85 ppb or greater. The tertiary trigger date will be 60 days from the date on which an ozone monitor in a maintenance area records a 4th highest value of 85 ppb or greater.[35]

The DAQ commits to begin implementing as expeditiously as practicable, but no later than 24 months of the primary or secondary trigger, at least one control measure that is determined to be most appropriate for reducing NOx emissions to attain and maintain the standard based on the analyses performed.

EPA proposes to find that the contingency provisions in North Carolina's second maintenance plans for the 1997 8-hour Ozone NAAQS meet the requirements of the CAA section 175A(d).

E. Conclusion

EPA proposes to find that the GSMNP, Triangle and Rocky Mount LMPs for the 1997 8-hour ozone NAAQS include an approvable update of the various elements (including attainment inventory, assurance of adequate monitoring and verification of continued attainment, and contingency provisions) of the initial EPA-approved Maintenance Plans for the 1997 8-hour ozone NAAQS. EPA also proposes to find that the GSMNP, Triangle and Rocky Mount Areas, qualify for the LMP option, and adequately demonstrate maintenance of the 1997 8-hour ozone NAAQS through the documentation of monitoring data showing maximum 1997 8-hour ozone levels well below the NAAQS and historically stable design values. EPA believes the GSMNP, Triangle and Rocky Mount LMPs for the 1997 8-hour ozone NAAQS, which retain all existing control measures, are sufficient to provide for maintenance of the 1997 8-hour ozone NAAQS in each of the Areas over the second maintenance period (i.e., through January 6, 2030 for the

[35] See the Contingency Plan Section of each LMP for further information regarding the contingency plan, including measures that North Carolina will consider for adoption if any of the triggers are activated.

GSMNP Area, through January 5, 2027 for the Rocky Mount Area, and through December 26, 2027 for the Triangle Area) and thereby satisfy the requirements for such plans under CAA section 175A(b). EPA is therefore proposing to approve North Carolina's September 22, 2020, submission of each Area's LMP for the 1997 8-hour ozone NAAQS as a revision to the North Carolina SIP.

V. Transportation Conformity and General Conformity

Transportation conformity is required by section 176(c) of the CAA. Conformity to a SIP means that transportation activities will not produce new air quality violations, worsen existing violations or delay timely attainment of the NAAQS. *See* CAA 176(c)(1)(A) and (B). EPA's transportation conformity rule at 40 CFR part 93 subpart A requires that transportation plans, programs and projects conform to SIPs and establishes the criteria and procedures for determining whether they conform. The conformity rule generally requires a demonstration that emissions from the Regional Transportation Plan (RTP) and the Transportation Improvement Program (TIP) are consistent with the motor vehicles emissions budget (MVEB) contained in the control strategy SIP revision or maintenance plan. *See* 40 CFR 93.101, 93.118, and 93.124. A MVEB is defined as "the portion of the total allowable emissions defined in the submitted or approved control strategy implementation plan revision or maintenance plan for a certain date for the purpose of meeting reasonable further progress milestones or demonstrating attainment or maintenance of the NAAQS, for any criteria pollutant or its precursors, allocated to highway and transit vehicle use and emissions" *See* 40 CFR 93.101.

Under the conformity rule, LMP areas may demonstrate conformity without a regional emissions analysis. *See* 40 CFR 93.109(e). EPA made findings that the MVEBs in the first 10-years of the 1997 8-hour zone maintenance plan for the GSMNP, Triangle and Rocky Mount Areas were adequate for transportation conformity purposes. In a Federal Register notice published on December 7, 2009, EPA notified the public of the adequacy finding for the GSMNP Area through final rulemaking; the adequacy determination for GSMNP Area became

effective on January 6, 2010. *See* 74 FR 63995. In a Federal Register notice published on December 26, 2007, EPA notified the public of the adequacy finding for the Triangle Area through final rulemaking; the adequacy determination for the Triangle Area became effective on December 26, 2007. *See* 72 FR 72948. In a Federal Register notice published on November 6, 2006, EPA notified the public of the adequacy finding for the Rocky Mount Area through direct final rulemaking; the adequacy determination for the Rocky Mount Area became effective on January 5, 2007. *See* 71 FR 64891.[36]

After approval of or an adequacy finding for each of these LMPs, there is no requirement to meet the budget test pursuant to the transportation conformity rule for the respective maintenance area. All actions that would require a transportation conformity determination for the GSMNP, Triangle and Rocky Mount Areas under EPA's transportation conformity rule provisions are considered to have already satisfied the regional emissions analysis and "budget test" requirements in 40 CFR 93.118 as a result of EPA's adequacy finding for these LMPs. *See* 69 FR 40004 (July 1, 2004).

However, because LMP areas are still maintenance areas, certain aspects of transportation conformity determinations still will be required for transportation plans, programs, and projects. Specifically, for such determinations, RTPs, TIPs and transportation projects still will have to demonstrate that they are fiscally constrained (40 CFR 93.108), meet the criteria for consultation (40 CFR 93.105) and Transportation Control Measure implementation in the conformity rule provisions (40 CFR 93.113), as well as meet the hot-spot requirements for projects (40 CFR 93.116).[37] Additionally, conformity determinations for RTPs and TIPs must be determined no less frequently than every four years, and conformity of plan and TIP

---

[36] NCDAQ submitted a SIP revision to update the MVEBs for the Rocky Mount Area on February 7, 2011. EPA approved the updated MVEBs on September 27, 2012. *See* 77 FR 59335. The approval was made through direct final rulemaking and became effective on November 26, 2012.

[37] A conformity determination that meets other applicable criteria in Table 1 of paragraph (b) of this section (93.109(e)) is still required, including the hot-spot requirements for projects in CO, PM_{10}, and fine particulate matter ($PM_{2.5}$) areas.

amendments and transportation projects is demonstrated in accordance with the timing requirements specified in 40 CFR 93.104. In addition, in order for projects to be approved they must come from a currently conforming RTP and TIP. *See* 40 CFR 93.114 and 40 CFR 93.115.

VI. Proposed Actions

Under sections 110(k) and 175A of the CAA and for the reasons set forth above, EPA is proposing to approve the GSMNP, Triangle and Rocky Mount LMPs for the 1997 8-hour ozone NAAQS, submitted by NCDAQ on September 22, 2020, as revisions to the North Carolina SIP. EPA is proposing to approve the LMPs because each LMP includes an acceptable update of the various elements of the 1997 8-hour ozone NAAQS Maintenance Plans approved by EPA for the first 10-year period (including emissions inventory, assurance of adequate monitoring and verification of continued attainment, and contingency provisions), and retains the relevant portions of the SIP.

EPA also finds that the GSMNP, Triangle and Rocky Mount Areas, former nonattainment areas for the 1997 8-hour ozone NAAQS, qualify for the LMP option, and therefore, the Areas' LMPs adequately demonstrate maintenance of the 1997 8-hour ozone NAAQS through documentation of monitoring data showing maximum 1997 8-hour ozone levels well below the NAAQS and continuation of existing control measures. EPA believes each of the Areas' 1997 8-Hour Ozone LMPs to be sufficient to provide for maintenance of the 1997 8-hour ozone NAAQS over the second 10-year maintenance periods (which extends through January 6, 2030 for the GSMNP Area, through January 5, 2027 for the Rocky Mount Area; and through December 26, 2027 for the Triangle Area), and thereby satisfy the requirements for such a plan under CAA section 175A(b).

VII. Statutory and Executive Order Reviews

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable Federal regulations. *See* 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices,

provided that they meet the criteria of the CAA. These actions merely propose to approve state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, these proposed actions:

- Are not significant regulatory actions subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- Do not impose information collection burdens under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Are certified as not having significant economic impacts on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq*.);
- Do not contain any unfunded mandates or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4);
- Do not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Are not economically significant regulatory actions based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Are not significant regulatory actions subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Are not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; and
- Do not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

These SIP revisions are not proposed to apply on any Indian reservation land or in any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), nor will it impose substantial direct costs on tribal governments or preempt tribal law.

List of Subjects in 40 CFR Part 52

Environmental Protection, Air Pollution Control, Incorporation by reference, Intergovernmental Relations, Nitrogen Oxides, Ozone, Reporting and Recordkeeping Requirements, Volatile Organic Compounds.

Authority: 42 U.S.C. 7401 et seq.

Dated: February 3, 2022.

Daniel Blackman,
Regional Administrator,
Region 4.

[FR Doc. 2022-02718 Filed: 2/10/2022 8:45 am; Publication Date: 2/11/2022]